

PROACTIVE OPTICAL TRAJECTORY FOLLOWING SYSTEM

ABSTRACT OF THE DISCLOSURE

A system for automatically correcting flight path of an aircraft onto a predetermined trajectory is provided. A sensor is configured to sense speed and direction of air relative to the aircraft at a predetermined distance in front of the aircraft. A navigation system is configured to determine displacement of a flight path of the aircraft from a predetermined trajectory. A processor is coupled to receive the sensed speed and direction of air from the sensor and the displacement of the flight path from the navigation system. The processor includes a first component that is configured to determine whether the speed of the air at the predetermined distance is indicative of turbulence, and a second component that is configured to automatically generate control signals to correct the flight path of the aircraft from the displacement onto the predetermined trajectory by a time when the aircraft enters the turbulence.

